

[0097] It will be obvious to a person skilled in the art that, as technology advances, the inventive concept may be implemented in various ways. The invention and its embodiments are not limited to the examples described above but may vary within the scope of the claims.

What is claimed is:

1. An apparatus comprising:
at least one processor and at least one memory including a computer program code, the at least one memory and the computer program code configured to, with the at least one processor, cause the apparatus at least to:
choose a modulation, coding and rank scheme;
determine a channel quality indicator based on the modulation, coding and rank scheme, and
add a detector class indicator to the channel quality indicator for informing capability to a high order modulation, if the high order modulation is chosen.
2. The apparatus of claim 1, wherein the choosing of the modulation, coding and rank scheme is based on determining a link quality metric.
3. The apparatus of claim 2, wherein the determination of a link quality metric is based on signal-to-interference-plus-noise ratio (SINR), mutual information, capacity and/or radio channel conditions.
4. The apparatus of claim 1, further comprising causing the apparatus to:
convey suggestion for the modulation, coding and rank scheme to a transmitter in the form of a channel quality indicator and/or rank indicator.
5. The apparatus of claim 1, wherein the detector class indicator consists of one bit.
6. The apparatus of claim 1, wherein the high order modulation is 64-quadrature amplitude modulation.
7. The apparatus according to claim 6, wherein the high order modulation excludes quadrature phase shift keying (QPSK) and 16-quadrature amplitude modulation (16-QAM).
8. The apparatus of claim 1, the apparatus comprising a user device.
9. A method comprising:
choosing a modulation, coding and rank scheme;
determine a channel quality indicator based on the modulation, coding and rank scheme, and

if a high order modulation is chosen, adding a detector class indicator to the channel quality indicator for informing capability to the high order modulation.

10. The method of claim 9, wherein the choosing of the modulation, coding and rank scheme is based on determining a link quality metric.

11. The method of claim 10, wherein the determination of a link quality metric is based on signal-to-interference-plus-noise ratio (SINR), mutual information, capacity and/or radio channel conditions.

12. The method of claim 9, further comprising:

conveying suggestion for the modulation, coding and rank scheme to a transmitter the form of a channel quality indicator and/or rank indicator.

13. The method of claim 9, wherein the detector class indicator consists of one bit.

14. The method of claim 9, wherein the high order modulation is 64-quadrature amplitude modulation.

15. The method according to claim 14, wherein the high order modulation excludes quadrature phase shift keying (QPSK) and 16-quadrature amplitude modulation (16-QAM).

16. A computer readable memory tangibly storing a computer program comprising program code for controlling an apparatus to execute a process, the process comprising:

choosing a modulation, coding and rank scheme;
determining a channel quality indicator based on the modulation, coding and rank scheme, and

if a high order modulation is chosen, adding a detector class indicator to the channel quality indicator for informing capability to the high order modulation.

17. The computer readable memory according to claim 16, wherein the detector class indicator consists of one bit.

18. The computer readable memory according to claim 16, wherein the high order modulation is 64-quadrature amplitude modulation (64-QAM).

19. The computer readable memory according to claim 18, wherein the high order modulation excludes quadrature phase shift keying (QPSK) and 16-quadrature amplitude modulation (16-QAM).

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